

## Doctoral Scholarships

The DFG-funded Collaborative Research Center (CRC 1449) "Dynamic Hydrogels at Biointerfaces" hosted by the **Freie Universität Berlin** offers several **doctoral scholarships** in the fields of Biophysics, Biological and Organic Chemistry, Bioinformatics and related areas. This CRC comprises a series of theoretical and experimental projects, which aim for the identification and elucidation of physicochemical properties of biological hydrogels (such as mucus and the glycocalyx) that define the protective function of such hydrogels. Furthermore, these properties shall be used to define anomalous behavior of biological hydrogels, enabling the development of novel therapeutic strategies.

## Scope of the scholarships

To elucidate the function of hydrogels at biological interfaces in health and disease, physical, chemical, and biological properties of native and synthetic hydrogels will be determined and analyzed within the projects of this CRC. These investigations will mainly focus on the surfaces of lung and gut, which are the largest biointerfaces within the human body that are covered with biological hydrogels. To this end, mucins (*i.e.*, the building blocks of mucus) and hydrogels will be synthesized and characterized using biophysical methods, yielding accurate physicochemical models of the synthesized compounds and allowing for a comparison with the properties of native mucins and biohydrogels, which are also characterized within the CRC.

The doctoral scholarships will perform investigations in the above-mentioned research areas and each scholarship will be supervised by one project leader of the CRC. Furthermore, the awardees will become member of the CRC's integrated Research Training Group, which offers:

- Doctoral scholarships with a maximum duration of 12 months and the possibility of a follow up funding within the CRC after ending of the scholarship
- Structured scientific qualification in an established research environment including the participation in a large selection of qualification measures
- Integration in interdisciplinary and interactional research networks
- Possibility for research stays in international labs of the CRC's research network

## Your profile

- Excellent master's degree or diploma in chemistry, physics, computer sciences or related areas
- Excellent course achievements
- High motivation for a structured and independent way of working
- Excellent language skills in German or English

We are looking forward to **your application**, which should contain the following documents:

- Letter of motivation (1 page), containing information on your previous research experiences and future goals (*i.e.*, a short research plan indicating max. 3 projects of the CRC, which may host your research activities)
- CV (including list of publications if applicable)
- Copies of your bachelor, master, or diploma degree (including transcript of records)
- At least two support letters

Candidates have to meet the requirements, which would qualify them for entry to a doctoral program at the respective institute. Students will be chosen on the basis of their previous grades and academic references. The CRC 1449 encourages, in particular, women as well as disabled persons to apply for the scholarships.

Awardees will receive a stipend of € 1.365 per month. An additional material cost allowance of € 103 per month will also be paid. A child care allowance may be granted if applicable. Please visit <http://www.sfb1449.de> for further information.

Applications should be addressed via email until **09/15/2021** to the coordinator of the CRC's integrated Research Training Group: [irtg@sfb1449.de](mailto:irtg@sfb1449.de). Please send all documents in a single PDF file and refer to the identifier **sfb1449\_scholarship** in your email.



